

DRAFT for Discussion Purposes Only - Do Not Cite or Quote

Proposed Regulatory Concepts to Reduce Emissions from Compression Ignition Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards

Purpose

The purpose of this regulation is to reduce diesel particulate matter (PM) and criteria pollutant emissions from mobile diesel-fueled compression ignition (CI) cargo handling equipment at ports and intermodal rail yards.

Applicability

The regulation would apply to any person who sells, offers for sale, leases, purchases, owns or operates any mobile diesel-fueled CI cargo handling equipment at a port or intermodal rail yard in California.

Exemptions

The proposed regulation would not apply to:

- (A) cargo handling equipment not located at a port or intermodal rail yard,
- (B) cargo handling equipment that operates using alternative fuels.

Key Definitions

"Alternative Fuel" means natural gas, propane, ethanol, methanol, gasoline (when used in hybrid electric cargo handling equipment only), hydrogen, electricity, fuel cells, or advanced technologies that do not rely on diesel fuel. "Alternative fuel" also means any of these fuels used in combination with each other or in combination with other non-diesel fuels.

"Cargo Handling Equipment" means any off-road self-propelled equipment used to lift or move container, bulk, or liquid cargo carried by ship, train, or another vehicle, within a port or intermodal rail yard. Equipment includes but is not limited to cranes, yard tractors, top handlers, side handlers, reach stackers, forklifts, loaders, sweepers, excavators, and dozers.

"Idling" means the vehicle engine is running at any location while the vehicle is stationary.

"Intermodal Rail Yard" means any rail facility used in the movement of cargo by train and any other form of conveyance, such as train to ship, ship to train, train to truck, or truck to train.

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"New" or "New CI Engine" means the following:

- (A) diesel-fueled CI engine installed on any cargo handling equipment at a port or intermodal rail yard after July 31, 2006.

"Port" means facilities used for water-borne commerce.

Performance Requirements

All Equipment

- Reduce all unnecessary idling (i.e., do not idle for greater than five minutes at any one location)
- When purchasing new equipment on or after January 1, 2006, buy the cleanest available (i.e., 2004 or newer certified on-road diesel engine, alternative fuel, new certified off-road diesel engine with the addition of a verified emission control system where applicable, etc.)

Yard Trucks (In-Use)

Model Year or Effective* Model Year	Standard	Compliance Date
Pre-1996	Install 2004 or later certified on-road engine or equivalent**	July 2007
1996-2002 With verified ECS installed by adoption date	Install 2004 or later certified on-road engine or equivalent**	July 2008
1996-2002 Without verified ECS installed	Install 2004 or later certified on-road engine or equivalent**	July 2007
2003-2005 (verified ECS is available)	Install highest level verified ECS	July 2007
2003-2005 (verified ECS is NOT available)	Install Tier 4 certified off-road engine	July 2011***
2006-2007	Install Tier 4 certified off-road engine	July 2013
2008-2010	Install Tier 4 certified off-road engine	July 2016

Notes:

* "Effective Model Year" refers to the year the new engine was installed regardless of the model year of the equipment (i.e., a new 2004 on-road engine installed in 2006 into a 1997 model year vehicle would then have an effective model year of 2006 and would be required to meet the standards for that effective model year).

** We are currently evaluating the applicability of 2007 on-road engines and may revise the requirements based on the feasibility of those engines.

*** For engines under 175 horsepower, the compliance date for this group would be 2012 (to align with the effective date of Tier 4 standards for 100 to 175 horsepower engines).

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All Other Equipment* - Excluding Yard Trucks (In-Use)

- Install best available control technology (BACT)
 - new certified on-road diesel engine if available;
 - verified Level 3 ECS
 - engine that meets certified Tier 4 Off-Road Diesel Engine standards;
 - alternative fuels;
 - highest level available ECS verified for that equipment; or
 - engine that meets certified Tier 3 Off-Road Diesel Engine standards and install verified ECS if available.
 - All equipment must meet Tier 4 certified off-road diesel engine standards by 20xx. **
- * Includes but is not limited to top handlers, side handlers, reach stackers, rubber-tired gantry cranes, forklifts, skid steer loaders, rubber-tired loaders, dozers, excavators, and sweepers.
- ** We are currently evaluating cost and average useful life of all cargo handling equipment and may consider equipment-specific timelines to meet Tier 4 certified off-road engine standards.

Example BACT Compliance Schedule for All Other In-Use Equipment (Excluding Yard Trucks)

Group	Engine Model Years	Compliance Deadline
1	pre-1987	January 1, 2007
2	1988-1995	January 1, 2008
3	1996-2005	January 1, 2010

Reporting Requirements

- Submit initial compliance plan describing how regulation compliance will be achieved and submit yearly updates thereafter.